NOTICE OF FINAL RULEMAKING
Maricopa County Air Pollution Control Regulations
PREAMBLE

1. Rules Affected | **Rulemaking Action**

Rule 313 (Incinerators, Burn-Off Ovens and Crematories) Sections 101, 102, 201, 202, 204, 206, 208, 209, 210, 211, 212, 301, 302, 303, 304, 305, 306, 307, 308, 401, 501, 502, 503, and 504	Amend

2. The specific authority for the rulemaking, including both the authorizing statute (general) and the statutes the rules are implementing (specific):

Authorizing and implementing statutes: ARS § 49-479

3. The effective date of the rule:

Date adopted by the Board of Supervisors (scheduled for November 17, 1999).

4. List of all previous notices addressing the proposed rules:

Notice of Public Workshop published in Notice of Public Workshops and Hearings for the 2nd and 3rd Quarters 1999.
Notice of Public Workshops published in Record Reporter on 6/2/99, 6/9/99, 8/4/99, and 8/11/99.
Notice of Public Workshops published in Visibility Newsletter issues for the 2nd and 3rd Quarters 1999.
Notice of Public Workshops published on the Internet April and July 1999.
Notice of Public Hearing published in 4th Quarter Notice of Public Workshops and Hearings, mailed October 1999.
Notice of Public Hearing published in Arizona Administrative Register October 15, 1999.
Notice of Public Hearing published in 3rd Quarter Visibility Newsletter, October 1999.
Notice of Public Hearing published on the Internet October 1, 1999.

5. The name and address of agency personnel with whom persons may communicate regarding the rulemaking:

Name:	Patricia Nelson / MCESD/ Air Quality Division
Address:	1001 North Central Avenue, Phoenix, AZ 85004
Telephone Number:	602-506-6709
Fax Number:	602-506-6179

6. An explanation of the rule, including the agency's reasons for initiating the rule:

Maricopa County fails to meet the national ambient air quality standards (NAAQS) for particulates, carbon monoxide, and ozone. The area was reclassified from "moderate" to "serious" nonattainment for particulates in June 1996, for carbon monoxide in July 1996, and for ozone in February 1998. Consequently, Maricopa County must require stricter regulations for certain industries/activities/operations.

Maricopa County is proposing to revise Rule 313 (Incinerators, Burn-Off Ovens and Crematories) and to submit this rule as a revision to the (Arizona) State Implementation Plan (SIP).

Under Arizona Revised Statutes (ARS) §49-112(A), as enacted in 1994, Maricopa County may adopt rules that are more stringent than or in addition to a provision of the State, provided that the rule is necessary to address a peculiar local condition; and if it is either necessary to prevent a significant threat to public health or the environment that results from a peculiar local condition and is technically and economically feasible or if it is required under a federal statute or regulation, or authorized under an intergovernmental agreement with the federal government to enforce federal statutes or regulations if the county rule is equivalent to federal statutes or regulations; and if any fee adopted under the rule will not exceed the reasonable costs of the county to issue and administer that permit program.

Rule 313 complies with the requirements of ARS §49-112(A) in the following ways: the rule addresses the peculiar local condition of the Maricopa County Nonattainment Area "serious" classification for particulates; the rule needs to be submitted to the Environmental Protection Agency (EPA) for inclusion in the SIP; and permit fees will not change as a result of these rules.

Maricopa County conducted Public Workshops to discuss the proposed revisions to Rule 313. Public workshops for Rule 313 were held on June 17, 1999 and August 19, 1999. Revised Rule 313 will have a new title, "Incinerators, Burn-Off Ovens and Crematories" to address all three types of units instead of naming the rule, "Incinerators."

Maricopa County is proposing to revise Rule 313 in order to include burn-off ovens and to increase operating flexibility by allowing the option of night burning as long as **both** a continuous opacity meter is used and a qualified operator is present. Currently, Rule 313 applies to crematories as a type of incinerator, but is not explicit in its explanation. Revised Rule 313 will include a definition of crematory, as well as outline parameters for crematory operation. Revised Rule 313 will also outline specific operating parameters such as temperature and residence times for incinerators and burn-off ovens. Revised Rule 313 will also specify recordkeeping requirements for documentation of operator training if night burning is performed.

7. A reference to any study that the agency proposes to rely on its evaluation of or justification for the proposed rule and where the public may obtain or review the study, all data underlying each study, any analysis of the study, and other supporting material:

Not applicable.

8. A showing of good cause why the rule is necessary to promote a statewide interest if the rule will diminish a previous grant of authority of a political subdivision of this state:

Not applicable.

9. The summary of the economic, small business, and consumer impact:

Maricopa County has determined that the incorporation of a practice (night burning) that is optional does not have an economic impact on businesses in Maricopa County. The revised rule allows for increased flexibility by allowing another operating option. There are added costs with the performance of night burning, such as a continuous opacity meter and presence of an operator, but the performance of night burning is an option for industry. Operations that are added as an option in a rule are not expected to have an economic impact on business, as they are not mandated. Some owners or operators may choose to burn only in the day so that any new compliance issues are avoided.

10. A description of the changes between the most recent public workshop draft and the final rule:

Section 101 was revised to address burn-off ovens by eliminating the expansive definition for ovens because the definition of burn-off ovens in Section 201 already expands upon their uses. Section 102 was revised to read "charge burning capacity " in subsection 102a. The workshop draft was incorrect in stating " fuel burning capacity."

The definition of afterburner in Section 201 was revised to state that an afterburner may be associated "with" an incinerator, not "in" an incinerator, since afterburners may be next to the primary burner but not necessarily a part of the whole incinerator. Section 202 was revised by expanding the list of substances that a burn-off oven may remove. Section 206 was revised to include "clinic" in the definition of hospital waste. Subsections 210.1, 210.2 and Section 213 and 214 were revised to eliminate the words "stoichiometric" and "sub-stoichiometric" in order to eliminate confusion.

Subsections 301.1, 301.2, and 301.3 were revised to eliminate the option of using manufacturer's specifications in these subsections so as to avoid the legalities involved in adopting different manufacturer's specifications in a county rule. An additional two subsections were included in the final draft that address the use of alternate operating conditions. Section 304 has also been revised by eliminating the reference to manufacturer's specifications. In subsection 305.1, the word "particulate" has been removed in association with opacity because opacity is not necessarily a measure of particulates only. Subsection 305.2 has been revised to include the type of training that a qualified operator shall have in order to terminate an operation if opacity is exceeded. Subsection 305.3 has been removed entirely. Section 307 has been removed, as the word "insignificant" may cause interpretational debates. Subsection 308.4 has been entirely removed from the exemptions, as their inclusion was incorrect. Ovens used in semi-conductor operations are subject to this rule.

In subsections 501.1, 501.2, and 501.3, the term "hours of operations" has been further clarified to read "time of day" that the device is operating. A new subsection on night burning recordkeeping has been added to reflect the requirements of the county relating to continuous emission monitoring in county Rule 245. This includes collection of data from the continuous opacity meter
and submission of a written report of excess emissions for each calendar quarter. Documentation of operator training is also required. In subsection 503.2, reference to the visible emissions evaluator as being certified by the Arizona Department of Environmental Quality has been removed. Internal staff did not agree with the descriptor, "expert" in reference to the capability of a visible emissions evaluator. The certification in visible emissions does not necessarily qualify an observer as an expert. Section 504 has been revised to include the publication dates of the various test methods.

11. A summary of the principal comments and the agency response to them:

COMMENT: As the current rule is written, the definition of an incinerator could include flares used to burn gases. Would you please clarify whether this rule will apply to flares?

RESPONSE: This rule was not intended to apply to flares. Flares are a type of air pollution control equipment. The revised rule will reflect the exemption. It will be for Air Pollution Control Equipment. An incinerator itself is not an type of air pollution control equipment, but rather incineration is a process in its own right, as is cremation and using a burn-off oven.

COMMENT: Will this revised rule apply to gases as the current Resource Conservation and Recovery Act (RCRA) extends the definition of " solid waste" to apply to liquids and gases? Maricopa County Environmental Services Department defines combustible refuse as a solid waste, which therefore could mean a gas also according to RCRA.

RESPONSE: The definition of combustible refuse was changed to reflect that this rule does not apply to gases.

COMMENT: You state that visible emissions must be done by an expert VE observer. I am certified in VE but do not consider myself an expert. What qualifies an expert?

RESPONSE: We have removed the term "expert" from the qualifications. Certification is quite sufficient.

COMMENT: Why not require an O & M plan in the rule for the afterburner? After all, it is a form of an Emission Control System.

RESPONSE: We consulted with our compliance department and they felt that the information that we are requiring in the recordkeeping section was sufficient in this particular application.

COMMENT: Since night burning is now allowed under the new proposed rule, will we have to modify our permits?

RESPONSE: Eventually you will have to do a minor modification to the permit if you want to burn at night.

12. Any other matters prescribed by statute that are applicable to the specific agency or to any specific rule or class of rule:

Not applicable.

13. Incorporations by reference and their location in the rules:

Incorporation by reference (subparts or larger)	Location
40 CFR Part 60, Appendix A, Methods 1,2,3,4,5, and 9	Section 501
Performance Specification Method 1	Section 501

14. Were the rules previously adopted as an emergency rule?

No.

15. The full text of the rules follows:

REGULATION III - CONTROL OF AIR CONTAMINANTS

RULE 313
INCINERATORS, BURN-OFF OVENS AND CREMATORIES

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SECTION 400 - ADMINISTRATIVE REQUIREMENTS

SECTION 500 - MONITORING AND RECORDS

Revised 07/13/88
Revised 04/07/93

MARICOPA COUNTY
AIR POLLUTION CONTROL REGULATIONS

REGULATION III - CONTROL OF AIR CONTAMINANTS

RULE 313
INCINERATORS, BURN-OFF OVENS AND CREMATORIES

SECTION 100 - GENERAL

101 PURPOSE: To establish standards for incinerators, ~~that are used for refuse disposal~~, burn-off ovens~~, used in either metal salvage operations or used to remove non-metallic coatings from metal parts~~, and human and animal crematories and to limit ~~particulate~~ emissions from burning in all of these sources.~~incinerator burning.~~

102 APPLICABILITY: This rule applies to all incineration except the incineration of hazardous waste as identified under subtitle C of the federal Resource Conservation and Recovery Act, or the incineration of ~~medical waste.~~ hospital, medical or infectious waste ~~as identified in~~ subject to Rule 317 of the Maricopa County Air Pollution Control Regulations or subject to 40 CFR Part 60 Subpart Ec. In addition, ~~T~~this rule applies to those burn-off ovens used in metal salvage operations or used to remove non-metallic coatings ~~such as rubber, hydrocarbons, oils, greases or paints~~ from metal parts by the application of heat that meet at least one of the following conditions:

a. Charge burning capacity greater than 25 lb. per hour;

b. Internal oven volume greater than 1 cubic yard;

c. Fuel burning capacity of primary chamber greater than ~~3~~200,000 BTU/hr.

This rule does not apply to the types of ovens listed in Section 307 of this rule. This rule applies to all human and animal crematories.

SECTION 200 - DEFINITIONS: For the purpose of this rule, the following definitions shall apply:

201 AFTERBURNER - The heating ~~compartment or chamber~~ device associated with ~~in~~ an incinerator, burn-off oven or crematory that is designed to provide excess air and heat for complete combustion of the gases created in the primary chamber so as to control particulate emissions.

202 BURN-OFF OVEN - A heating device used to remove ~~rubber and other~~ materials such as ~~hydrocarbons,~~ oils, greases, ~~and~~ paints, coatings, rubber and insulation from ~~from electrical and metal~~ other materials or parts by burning or charring. These ovens may also be used in metal salvage operations. This definition may include controlled

pyrolysis ovens, pyrolysis furnaces, cleaning ovens, electric induction furnaces and electric pyrolysis furnaces.

20~~1~~3 **COMBUSTIBLE REFUSE -** Any solid or liquid combustible waste material containing carbon in a free or combined state.

204 **CREMATORY** - An incinerator used for the cremation of human and animal bodies, their body parts, and for the incineration of associated animal bedding. Associated wrappings, wherein the corpse is contained, are also included in this definition.

20~~2~~5 **FLUE -** A duct or passage, such as a stack or chimney, for air contaminants.

206 **HOSPITAL WASTE -** ~~d~~Discards generated at a hospital~~,~~ or clinic, except unused items returned to the manufacturer. The definition of hospital waste does not include human corpses, remains, and anatomical parts that are intended for internment or cremation.

20~~3~~7 **INCINERATOR -** Any equipment, machine, device, contrivance or other article and all appurtenances thereof used for the destruction or reduction by ~~burning of~~fire of combustible refuse or salvage material.

20~~4~~8 **MEDICAL WASTE -** Any non-gaseous waste, including infectious wastes, which is generated in the diagnosis, treatment, or immunization of human beings or animals, in research pertaining thereto, or in production or testing of biological agents and substances. Medical waste does not include any wastes identified under subtitle C of the Resource Conservation and Recovery Act (RCRA) as hazardous or as household waste, but includes those pharmaceuticals which are not identified as hazardous by subtitle C of RCRA. It does not include human corpses or remains or waste from crematories. It does include cultures and stocks of infectious agents and human pathological waste; human blood and blood products, sharps, needles and broken glass that were in contact with infectious waste; animal wastes exposed to infectious wastes, isolation wastes and unused sharps, needles and syringes. An expanded definition of medical waste is found in 40 CFR Part 60 Subpart Ec.

209 **METAL SALVAGE OPERATIONS -** Any source operation in which combustion pyrolysis is carried on for the principal purpose, or with the principal result, of recovering metals which are introduced into the operation as essentially pure metals, or alloys thereof, by oxidation of physically intermingled combustible material. Operations in which there is a complete fusion of all such metals are not included in these types of operations.

2~~0~~5~~1~~10 **MULTIPLE-CHAMBER STARVED-AIR INCINERATOR (or CONTROLLED AIR INCINERATOR) -** Any incinerator consisting of two or more refractory-lined combustion chambers in series, physically separated by refractory walls, interconnected by gas passage ports or ducts designed for maximum combustion of the material to be burned. A multiple chamber incinerator is designed to burn waste in at least two independent chambers:

210.1 **Primary Chamber** - Initial compartment wherein the majority of waste volume reduction or heat treatment occurs by combustion. Primary chambers are operated at lower temperatures than secondary chambers or afterburners.

210.2 **Secondary Chamber -** Compartment which operates at excess air conditions wherein destruction of gas-phase combustion products occurs. Passage ports, ducts, flues, chimneys, or stacks with burners shall not be considered controlled air secondary chambers unless the combustion zone exhibits design measures for the retention of the gas stream in the chamber, turbulence or mixing, and the availability of excess air, as determined by engineering analysis.

211 **PATHOLOGICAL WASTE -** Waste material that consists of only human or animal remains, anatomical parts and/or tissue, the bags/containers used to collect and transport the waste material, and animal bedding (if applicable).

2122 **RESIDENCE TIME -** The average time that gases spend in a defined space, also known as bulk gas average residence time.

~~**213** **STOICHIOMETRIC CONDITIONS** - A state of circumstances wherein the amount of combustion air or oxygen is of sufficient quantity to convert all of the carbon to carbon dioxide.~~

~~**214** **SUB-STOICHIOMETRIC CONDITIONS** - A state of circumstances wherein the amount of combustion air or oxygen is of an insufficient quantity to combine with all of the fuel and waste so that incomplete combustion occurs.~~

SECTION 300 - STANDARDS

301 **CONTROLS REQUIRED:** No person shall burn any combustible refuse in any incinerator, or perform metal salvage operations or remove ~~non-metallic~~ materials utilizing a burn-off oven, or burn human or animal corpses in a crematory within Maricopa County except ~~in an approved multiple-chamber incinerator, equipped with auxiliary fuel, or equipment equally effective for the purposes of air pollution control as an approved multiple-chamber incinerator~~ using the following air pollution control equipment~~.~~:

301.1 **Incinerators:** Incinerators shall consist of a multiple-chamber incinerator that shall reach a minimum temperature of 1600°F (871°C) in the secondary chamber or afterburner, with a residence time of at least 1 second in the secondary chamber or afterburner during the period of combustion in order to destruct the ~~gas-phase~~ combustion products.

301.2 **Burn-Off Ovens:** Burn-off ovens shall consist of an oven with at least two chambers. The secondary compartment or afterburner shall reach a minimum temperature of 1400°F (760°C) with a residence time of at least 1/2 second during the period of combustion in order to destruct the ~~gas-phase~~ combustion products.

301.3 Crematories: Crematories shall consist of an incinerator with at least two chambers. The secondary compartment or afterburner shall reach a minimum temperature of 1600°F (871°C) with a residence time of at least 1 second during the period of combustion in order to destruct the ~~gas-phase~~ combustion products.

301.4 Alternate Operating Conditions: If the manufacturer's specifications for an incinerator, crematory or burn-off oven are different than the temperatures set forth in subsection 301.1, 301.2 or 301.3, the manufacturer's specifications may be used instead, providing that the owner or operator demonstrates compliance with Section 302 and 303.

301.5 Operating Restriction: The minimum temperatures listed in subsection 301.1, 301.2, 301.3 and 301.4 shall be reached in the incinerator, burn-off oven or ~~-~~crematory prior to the introduction of the material to be combusted.

302 EMISSIONS STANDARD - OPACITY: Notwithstanding the provisions of Regulation III, Rule 300 (Visible Emissions), no person shall cause, suffer, or allow the emission into the atmosphere from any incinerator, burn-off oven, or crematory for an aggregate of more than 30 seconds in any 60 minutes any air contaminant which is a shade or density darker than 20 percent opacity. ~~as determined by EPA Method 9.~~

303 EMISSIONS STANDARD - PARTICULATES: No person shall cause, suffer, allow or permit the emission into the atmosphere from any incinerator, burn-off oven or crematory particulate matter which exceeds 0.08 grain per cubic foot of dry flue gas at standard conditions adjusted ~~either~~ to 12 percent carbon dioxide (CO_2) in the exhaust gases and calculated as if no auxiliary fuel had been used.~~or to 7 percent oxygen (O_2).~~

304 OPERATING EQUIPMENT - PERFORMANCE TESTING: ~~No person shall burn materials in any new source incinerator or crematory for which construction has commenced after [date of adoption] until it has passed a performance test based on the emission standards in Sections 302 and 303 of this rule. Existing, p~~Permitted incinerators and crematories shall undergo performance testing at least one time every five (5) years~~ urn-off ovens shall not be required to meet performance testing provided the oven is operated at the manufacturer's specificationsor the afterburner reaches a minimum temperature of 1400° F for ½ second of residence time.~~

~~302~~305 ~~PROHIBITION~~ NIGHT BURNING: No incinerator, burn-off oven or crematory burning shall be conducted between sunset and the following sunrise unless both of the following conditions listed in subsection 305.1 and 305.2 are met:

305.1 A continuous opacity ~~(particulate)~~ monitor shall be operating at all times during night burning. The monitor should be calibrated and maintained in accordance with EPA Performance Specification # 1 and shall be calibrated at least once per day if night burning is conducted. The opacity meter shall be located after (downstream of) all control equipment, prior to the stack exit, and prior to any dilution with ambient air.

305.2 An ~~qualified~~ operator, trained in proper startup, calibration, waste charging and shutdown procedures, must be present at all times during night burning to ensure that the opacity limitation in Section 302 of this rule is not exceeded by terminating the operation until the opacity limitation is met.

~~**303 OPERATING EQUIPMENT - PERFORMANCE TESTING:** No person shall burn combustible refuse in any incinerator until it has passed a performance test based on the emission standards in Sections 305 and 306 of this rule.~~

~~**304 INCINERATOR USE:** Approval of the use of an incinerator by the Control Officer is not intended to exempt the incinerator, its location or operation from the requirements of any public agency exercising proper jurisdiction.~~

~~**305 LIMITATION - PARTICULATE EMISSIONS:** No person shall cause, suffer, allow or permit the emission into the atmosphere from any incinerator particulate matter which exceeds 0.1 grains per cubic foot (229 milligrams per cubic meter) of dry flue gas at standard conditions adjusted either to 12 percent carbon dioxide in the exhaust gases and calculated as if no auxiliary fuel had been used or to seven percent oxygen (O_2). (**SHOULD WE LOWER # GRAINS ??? see Pa.. rule)**~~

~~**306 LIMITATION - VISIBLE EMISSIONS:** Notwithstanding the provisions of Regulation III, Rule 300 (Visible Emissions), no person shall cause, suffer, or allow the emission into the atmosphere from any incinerator for an aggregate of more than 30 seconds in any 60 minutes any air contaminant which is a shade or density darker than 20 percent opacity~~.

306 REQUIREMENTS FOR AIR POLLUTION CONTROL EQUIPMENT: Any person incinerating or otherwise processing particulate emissions pursuant to this rule shall provide, properly install and maintain in calibration, in good working order and operation, devices that indicate temperatures, pressures, rates of flow, or other operating conditions necessary to determine if the air pollution equipment is functioning properly and is properly maintained. Records shall be kept pursuant to Section 501 that~~which~~ demonstrate that the Control system meets the overall control standard required by Section 300. If the Control System consists of more equipment than an afterburner, such as a baghouse or venturi scrubber, then an Operations and Maintenance plan shall be submitted for approval to the Control Officer.

307 EXEMPTIONS: The following types of ovens or heating devices shall not be subject to this rule**:**

307.1 Laboratory ovens and furnaces.

307.2 Environmental test chambers.

307.3 Ovens used in research facilities.

307.4 Curing or drying ovens that are operated at temperatures lower than 600° F (316°C).

307.5 Flares.

SECTION 400 - ADMINISTRATIVE REQUIREMENTS

401 COMPLIANCE SCHEDULE: Owners or operators subject to this rule who prior to [date of adoption] have not already submitted to the Control Officer a schedule for complying with this rule shall do so by [six months after adoption]. Full compliance with all applicable provisions of this rule shall be achieved by [12 months after date of adoption].

~~**401 INFORMATION REQUIRED:** No incinerator shall be constructed, remodeled, installed or used until the following information, and any additional information the Control Officer may require, has been filed with and approved by the Control Officer, and then only in compliance with the requirements of these Regulations.~~

~~**401.1** Plans and specifications describing the capacity, amount and type of combustible refuse to be incinerated, proposed fuel, fire chamber and stack details, location of the incinerator with reference to adjacent premises, and auxiliary fuel controls.~~

~~**401.2** Procedures and equipment used to handle refuse and to charge the incinerator.~~

~~**401.3** Methods and equipment for preventing the discharge of contaminants into the ambient air.~~

~~**401.4** Receptacles for storage and means of disposal of residue~~.

SECTION 500 - MONITORING AND RECORDS

501 RECORDKEEPING: Recordkeeping requirements shall include the following types of information:

501.1 INCINERATORS shall keep records of the type of combustible material to be incinerated, total weight charged, chamber temperatures and times of the day that the incinerator is operating.

501.2 BURN-OFF OVENS shall keep records of the type of combustible material to be burned, chamber temperatures and times of the day that the burn-off oven is operating.

501.3 CREMATORIES shall keep records of the number of corpses cremated, chamber temperatures, and times of the day that the crematory is operating. The owner of an animal crematory shall account for either the weight of animal corpses charged or the number and type of corpse charged. In addition, if a human crematory burns a large corpse (over 300 lbs.), the approximate weight of the corpse shall be noted.

501.4 Night Burning – If night burning is conducted, the owner or operator shall:

a. Maintain a continuous record of opacity readings generated by the continuous opacity meter. Records shall include all times the meter is running properly. Records shall also indicate when the instrument is inoperative or has been adjusted or repaired.

b. Submit to the Control Officer a written report of excess emissions for each calendar quarter and the nature and cause of the excess emissions, if known. The averaging period used for data reporting shall correspond to the averaging period specified in the emission standard for a pollutant source category in question. The required report shall include, as a minimum, the data stipulated in this rule. These periodic reports do not relieve the source operator from the reporting requirements of Rule 100, Section 502.

c. For opacity measurements, the summary shall consist of the magnitude in annual percent opacity of all six-minute opacity averages greater than any applicable standards in these rules for each hour of operation of the source. Average values may be obtained by integration over the averaging period or by arithmetically averaging a minimum of four equally spaced, instantaneous opacity measurements per minute. Any time periods exempted shall be deleted before determining any averages in excess of opacity standards.

d. The date and time identifying each period during which the continuous opacity monitoring system was inoperative, except for zero and span checks and the nature of system repair or adjustment shall be reported. The Control Officer may require proof of continuous opacity monitoring system performance whenever system repairs or adjustments have been made.

e. Owners or operators conducting night burning shall maintain a file of all information reported in the quarterly summaries and all other data collected by the continuous opacity monitoring system or as necessary to convert monitoring data to the units of the applicable standard.

f. Owners or operators shall maintain documentation of operator training. These records shall consist of the dates of training and a description of the material covered in the training course.

~~The owner or operator of any incinerator subject to the provisions of this rule shall on each day of use record the total weight charged and the hours of operation.~~ ~~Records for incinerators, burn-off ovens and crematories shall include: type of combustible refuse or metal salvage material to be incinerated; proposed fuel, temperatures and residence times; fire chamber and stack details; location of the incinerator, burn-off oven or crematory with reference to adjacent premises; auxiliary fuel controls; methods and equipment for preventing the discharge of contaminants into the ambient air; and receptacles for storage and means of disposal of residue. Records shall also account for all control device failures and down time including time, date and cause.~~

~~**501.1** The owner or operator of any incinerator or burn-off oven subject to the provisions of this rule shall on each day of use record the total weightA charged and the hours of operation.~~

~~**501.2** The owner or operator of any human crematory shall account for the number of corpses burned and the hours of operation. The owner or operator of an animal crematory shall account for either the number of corpses or the weight of the charge.~~

502 **RECORDKEEPING RETENTION:** Copies of reports and supporting documentation required by the Control Officer shall be kept on site and retained for at least five years. Records and information required by this rule shall also be retained on site for at least five years.

50~~2~~3 **COMPLIANCE DETERMINATION~~ – TEST METHODS~~:** When more than one different test method is permitted for a determination, any exceedance of the limits established in this rule determined by any of the applicable test methods constitutes a violation of this rule.

50~~2~~3.1 For determining total particulate matter, EPA Methods 1 through 5 or their EPA alternates approved by the Control Officer shall be used. Both carbon dioxide and oxygen measurements shall be obtained simultaneously with each Method 5 run.

50~~2~~3.2 Determination of visible emissions compliance shall be made by a certified emissions observer using Method 9 or by a continuous emission monitor (mandatory for night burning), which is maintained and calibrated in accordance with EPA Performance Specification #1~~ (40 CFR, Part 60, Appendix B)~~. ~~The observer shall be qualified as an expert visible emissions evaluator and so certified by the Arizona Department of Environmental Quality or by any other agency entity that is acceptable to the Control Officer.~~

50~~3~~4 **TEST METHODS ADOPTED BY REFERENCE:** The test methods as they exist in the Code of Federal Regulations (CFR), date of publication July 1, 1998, as listed in subsections 504.1 through 504.7, are adopted by reference. These adoptions by reference include no future editions or amendments. Copies of test methods referenced in this Section are available at the Maricopa Environmental Services Department, 1001 North Central Avenue, Phoenix, Az. 85004-1942.

504.1 EPA Test Methods 1 (Sample and Velocity Traverses for Stationary Sources) and 1a (Sample and Velocity Traverses for Stationary Sources with Small Stacks), 40 CFR, Part 60, Appendix A.

504.2 EPA Test Methods 2 (Determination of Stack Gas Velocity and Volumetric Flow Rate), 2A (Direct Measurement of Gas Volume Through Pipes and Small Ducts), 2B (Determination of Exhaust Gas Volume Flow Rate from Gasoline Vapor Incinerators), 2C (Determination of Stack Gas velocity and Volumetric Flow Rate in Small Stacks and Ducts), and 2D (Measurement of

Gas Volumetric Flow Rates in Small Pipes and Ducts), 40 CFR, Part 60, Appendix A.

504.3 EPA Test Methods 3 (Gas Analysis for Carbon Dioxide, Oxygen, Excess Air, and Dry Molecular Weight), 3A (Determination of Oxygen and Carbon Dioxide Concentrations in Emissions From Stationary Sources), 3B (Gas Analysis for the Determination of Emission Rate Correction Factor or Excess Air), and 3C (Determination of Carbon Dioxide, Methane, Nitrogen, and Oxygen from Stationary Sources), 40 CFR, Part 60, Appendix A.

504.4 EPA Test Method 4 (Determination of Moisture Content in Stack Gases), 40 CFR, Part 60, Appendix A.

504.5 EPA Test Method 5 (Determination of Particulate Emissions from Stationary Sources), 40 CFR, Part 60, Appendix A.

504.6 EPA Test Method 9 (Visual Determination of the Opacity of Emissions from Stationary Sources), 40 CFR, Part 60, Appendix A.

504.7 EPA Test Method Performance Specification 1 (Specifications and Test Procedures for Opacity Continuous Emission Monitoring Systems in Stationary Sources), 40 CFR, Part 60, Appendix B.